

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

REC'D	13	NOV 2004
WIPO		PCT

Applicant's or agent's file reference E-1949/03	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)					
International application No. PCT/EP 03/51004	International filing date (day/mon	nth/year) Priority date (day/month/year) 16.12.2002				
International Patent Classification (IPC) or b A24C5/18	oth national classification and IPC	·				
Applicant G.D SOCIETA' PER AZIONI et al.						
This international preliminary exa Authority and is transmitted to the	amination report has been prepare applicant according to Article	ared by this International Preliminary Examining 36.				
2. This REPORT consists of a total	EPORT consists of a total of 4 sheets, including this cover sheet.					
been amended and are the	This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).					
These annexes consist of a total of 3 sheets.						
This report contains indications	relating to the following items:					
I ⊠ Basis of the opinion						
II □ Priority						
1	of opinion with regard to novelty	, inventive step and industrial applicability				
IV Lack of unity of inver	•	, , , , , , ,				
V ⊠ Reasoned statemen		ard to novelty, inventive step or industrial applicability;				
VI	cited					
VII Certain defects in th	e international application	•				
VIII Gertain observations	s on the international application	n				
Date of submission of the demand	Date	e of completion of this report				
09.07.2004		11.2004				
Name and mailing address of the internat preliminary examining authority:	ional Autr	norized Officer				
European Patent Office D-80298 Munich	Pille	e, S				
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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/51004

l.	Basis	s of the	e report
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1. With regard to the **elements** of the international application (Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)):

	Des	cription, Pages					
2-5, 7		7	as originally filed				
1, 6			received on 03.11.2004 with letter of 25.10.2004				
	Clai	ms, Numbers					
4 (part), 5-10			as originally filed				
1-3, 4 (part)		4 (part)	received on 03.11.2004 with letter of 25.10.2004				
	Drav	wings, Sheets					
	1/2-2	2/2	as originally filed				
2.	With regard to the language, all the elements marked above were available or furnished to this Authority language in which the international application was filed, unless otherwise indicated under this item.						
	The	These elements were available or furnished to this Authority in the following language: , which is:					
		the language of a trar	nslation furnished for the purposes of the international search (under Rule 23.1(b)).				
		the language of public	cation of the international application (under Rule 48.3(b)).				
		the language of a trar Rule 55.2 and/or 55.3	nslation furnished for the purposes of international preliminary examination (under).				
3.	With inte	ith regard to any nucleotide and/or amino acid sequence disclosed in the international application, the ernational preliminary examination was carried out on the basis of the sequence listing:					
		contained in the international application in written form.					
		international application in computer readable form.					
		furnished subsequently to this Authority in written form.					
		I furnished subsequently to this Authority in computer readable form.					
		The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.					
		The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.					
4.	The	e amendments have resulted in the cancellation of:					
		the description,	pages:				
		the claims,	Nos.:				
		the drawings,	sheets:				

INTERNATIONAL PRELIMINARY **EXAMINATION REPORT**

International application No.

PCT/EP 03/51004

This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement

1. Statement

Novelty (N)

Yes: Claims

No:

Inventive step (IS)

No: Claims Yes: Claims

1-10

1-10

Claims 1 No:

Industrial applicability (IA)

Yes: Claims Claims 1-10

see separate sheet

2. Citations and explanations

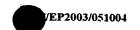


The present invention solves the problem of effecting a product change on a cigarette making machine without stopping the machine.

None of the cited documents teaches or suggests such a method performed by the steps of claim 1, see acknowledgment on p. 1, l. 13-17.

WO 2004/054393





JC20 Rec'd PCT/PTO 1 5 JUN 2005

PEPLACED BY ANT 34 AUDIT

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PRODUCT CHANGE METHOD FOR A CIGARETTE MANUFACTURING MACHINE

10 TECHNICAL FIELD

The present invention relates to a product change method for a cigarette manufacturing machine.

BACKGROUND ART

On cigarette manufacturing machines, product changes are normally made by stopping the machine and clearing the various compartments of the machine either by hand or using external suction devices.

Which operations obviously involve relatively long machine stoppages and the use of skilled labour.

20 <u>DISCLOSURE OF INVENTION</u>

It is an object of the present invention to provide a product change method for a cigarette manufacturing machine, designed to eliminate the aforementioned drawback.

More specifically, it is an object of the present invention to provide a method of effecting a product change on a cigarette manufacturing machine substantially without stopping the machine.



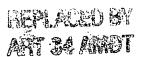
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point, suction along suction conduit 10 is cut off.

At the same time (Figure 3), deflecting member 28 is moved into the lowered work position to direct the remaining bead 19 of shredded tobacco 3a, without relative paper strip 22, into waste bin 31. This operation continues (Figure 4) until manufacturing machine 1 is cleared completely, which may optionally be perfected automatically using compressed air jets in known manner not shown.

At this point, with the machine in the configuration described above, but with suction restored along suction conduit 10, valve 12b is opened to feed shredded tobacco 3b directly into input hopper 2 (input hopper 2 is empty to begin with, so that plate 7 is kept in the vertical open position by level sensor 9) and afterwards only into box 5. By means of successive loads of shredded tobacco 3b, manufacturing machine 1 is filled completely with tobacco 3b to form a bead 19, which is fed, without relative paper strip 22, along forming table 20 and directed by intercepting device 27 into waste bin 31. Only when the correct compactness of bead 19 of shredded tobacco 3b is achieved, are conveyors 14 and 25 stopped and then started again, after feeding paper strip 22 along forming table 20, to form a new type of continuous cigarette rod 21, a first portion of which is again directed by intercepting device 27 into waste bin 30. Finally, deflecting member 28 is restored to the raised rest position to permit normal production of the



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CLAIMS

- 1) A product change method for manufacturing machine, wherein an input hopper 5 receives a first type (3a) of shredded tobacco from a supply header (4), and feeds it to at least one channel (17) for forming a bead (19) of tobacco, which is released onto a paper strip (22) travelling along a forming table (20) for forming a continuous cigarette rod 10 (21); the method comprising the steps of cutting off supply of said first type (3a) of tobacco to said manufacturing machine (1); unloading the first type (3a) of shredded tobacco from the manufacturing machine (1) to form a waste stream (31) of shredded tobacco of the first type (3a); and feeding a second type (3b) of shredded tobacco through the supply header (4) and the input until the manufacturing machine hopper (2) completely full.
- 2) A method as claimed in Claim 1, wherein unloading 20 the first type (3a) of tobacco comprises the step of arresting said paper strip (22).
 - 3) A method as claimed in Claim 2, and comprising the further step of only starting up supply of said paper strip (22) when the manufacturing machine (1) is filled completely with said second type (3b) of shredded tobacco.
 - 4) A method as claimed in any one of Claims 1 to 3, wherein the first type (3a) of tobacco is unloaded by